

L4 ANSWER 153 OF 233 CA COPYRIGHT 2003 ACS on STN  
 AN 120:198776 CA  
 TI Targets of partially stabilized **zirconia**, and their manufacture  
 IN Jaeckel, Gernot; Rudolph, Thomas; Peuckert, Doris; Joennson, Sigurd  
 PA Degussa AG, Germany  
 SO Ger., 4 pp.  
 CODEN: GWXXAW  
 DT Patent  
 LA German  
 IC ICM C23C014-08  
 ICS C23C014-30; C04B035-48  
 ICA F01D005-18  
 CC 57-2 (Ceramics)  
 FAN.CNT 1

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|------|---|------|----------|-----------------|----------|
| PI   | DE 4302167  | C1   | 19940210 | DE 1993-4302167 | 19930127 |
| PRAI | DE 1993-4302167   |      | 19930127 |                 |          |
| AB   | The ZrO <sub>2</sub> of the targets contains 0.5-25 wt.% Y <sub>2</sub> O <sub>3</sub> as stabilizer, both oxides have purity .gtoreq.98%, and 5-80 wt.% of the ZrO <sub>2</sub> is present in the monoclinic form and the balance in the tetragonal and <b>cubic</b> form. The targets have d. 3.0-4.5 g/cm <sup>3</sup> , and are used for forming thermally insulating <b>coatings</b> on metal components exposed to high temps. The targets are manufd. by pressing ZrO-Y <sub>2</sub> O <sub>3</sub> mixts., and sintering the green targets at 1150-1450.degree. for 0.5-10 h. |      |          |                 |          |
| ST   | <b>yttria</b> stabilizer <b>zirconia</b> sputtering target  |      |          |                 |          |
| IT   | Sputtering  |      |          |                 |          |
|      | (targets, <b>zirconia</b> , <b>yttria</b> -stabilized, manuf. of, for forming thermally insulating <b>coatings</b> on metal components exposed to high temps.)  |      |          |                 |          |
| IT   | 1314-23-4, <b>Zirconia</b> , uses   |      |          |                 |          |
|      | RL: USES (Uses)   |      |          |                 |          |
|      | (yttria-stabilized, sputtering targets, for forming thermally insulating <b>coatings</b> on metal components exposed to high temps.)  |      |          |                 |          |
| IT   | 1314-36-9P, <b>Yttria</b> , uses  |      |          |                 |          |
|      | RL: PREP (Preparation); USES (Uses)   |      |          |                 |          |
|      | (zirconia partially stabilized with, manuf. of, for forming thermally insulating <b>coatings</b> on metal components exposed to high temps.)  |      |          |                 |          |

=>

=> d his

(FILE 'HOME' ENTERED AT 15:52:13 ON 15 SEP 2003)

FILE 'CA' ENTERED AT 15:52:20 ON 15 SEP 2003

|    |  |
|----|--|
| L1 | 87926 S ZIRCONIA OR ZIRCONIUM(W)OXIDE                                |
| L2 | 4182 S L1 AND CUBIC  |
| L3 | 1950 S L2 AND (YTTRIA OR YTTRIUM(2A)OXIDE? OR GALDOLIUM OR YTTERBIUM |
| L4 | 233 S L3 AND (COATING OR COAT?)                                      |

=>